

**Notice of Allowability**

Application No.

10/787,327

Examiner

Ly D. Pham

Applicant(s)

LESEA, AUSTIN H.

Art Unit

2827

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 24 January 2005 and 07 February 2005.
2. ☒ The allowed claim(s) is/are 1, 3 and 4.
3. ☒ The drawings filed on 26 February 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 022604 & 012405
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

  
**HOAI HO**  
**PRIMARY EXAMINER**

### DETAILED ACTION

1. Applicant's Terminal Disclaimer filed January 24, 2004 has been approved and entered.
2. Applicant's Amendment filed January 24, 2004 has been entered. Claim 1 has been amended. Claims 2 and 5 – 9 have been cancelled.
3. Applicant's Information Disclosure Statements filed February 26, 2004 and January 24, 2005 have been considered by the Examiner.

### EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms. Lois Cartier (reg. 40,941) on February 7, 2005.

The application has been amended as follows:

**Replace claim 1 with the following** revised and amended version.

1. A memory device having a single event upset resistant circuitry, comprising:
  - a first inverter having a first input node and a first output node;
  - a second inverter having an second input node and a second output node;

a first transistor having a first source/drain contact coupled to the first input node and a second source/drain coupled to the second output node; and

a second transistor having a third source/drain contact coupled to the second input node and a fourth source/drain contact coupled to the first output node,

wherein each of the first and second transistors is programmable to provide a low resistance less than 1000 ohms and a high resistance of more than 100,000 ohms,

wherein each of the first and second transistors has a gate coupled to a gate bias voltage source, the gate bias voltage source putting the first and second transistors into a partially conductive state to provide the high resistances,

wherein the first and second transistors are the only transistors coupled to the first inverter and the second inverter to provide the single event upset resistance circuitry, and

wherein the first transistor and the second transistor each have a body contact coupled to a body bias source voltage.

***Allowable Subject Matter***

5. Claims 1, 3, and 4 are allowed.

6. The following is an examiner's statement of reasons for allowance:

The prior arts teach a memory device having SEU resistant circuitry, comprising:

a first inverter ...; a second inverter ...; a first transistor ...; a second transistor  
....

However, the prior arts fail to teach the memory device, further comprising:

the first and second transistors are the only transistors coupled to the first  
inverter and the second inverter to provide the SEU resistant circuitry; and

wherein the first transistor and the second transistor each have a body contact  
coupled to a body bias source voltage.

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02(b)).


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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly D. Pham whose telephone number is 571-272-1793.

The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoai Ho can be reached on 571-272-1777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ly D Pham   
February 7, 2005

  
**HOAI HO**  
**PRIMARY EXAMINER**